



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

OCT 20 2004

10 CFR 50 Appendix H

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

In the Matter of) Docket No. 50-390
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) UNIT 1 -- REACTOR VESSEL
SURVEILLANCE CAPSULE X TEST RESULTS AND REACTOR VESSEL FRACTURE
TOUGHNESS (J-R) TEST RESULTS

In accordance with 10 CFR 50, Appendix H.IV.A, TVA is submitting the Technical Report WCAP-16245-NP, "Analysis of Capsule X from the Tennessee Valley Authority Watts Bar Unit 1 Reactor Vessel Radiation Surveillance Program," Revision 0, dated April 2004. This report was developed by Westinghouse Electric Company LLC and details the tests results of Surveillance Capsule X withdrawn in Cycle 5 refueling outage after 6.63 effective full power years (EFPY) of operation. This WCAP is provided in Enclosure 1.

In addition to the above required report, Enclosure 2 provides a Technical Report entitled WCAP-16333-NP, "Fracture Toughness Testing of Compact Tension Specimens from Watts Bar Unit 1 Surveillance Capsule X," dated August 2004. This testing was conducted to supplement the results from the WBN Unit 1 Capsule X program. The testing in this report was also performed by Westinghouse Electric Company with procedures that were submitted to NRC for approval on July 10, 2001. NRC approved the use of those procedures in a letter dated August 1, 2001. Since the approved procedures were not a Westinghouse procedure, Westinghouse performed a "Proof-of-Principle Test" to ensure that the specimens could be milled and tested in accordance with the procedure. The results of this test are provided in Section 2 of the WCAP.

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This testing was performed in accordance with the WBN License Condition C(5) and completes the License Condition portion for Capsule X supplemental testing. Capsule W testing results were completed and provided to NRC by letter dated October 9, 2001. Therefore, License Condition C(5) has been completed.

There are no Regulatory commitments identified in this submittal. If you have any questions about these responses, please contact me at (423) 365-1824.

Sincerely,



P. L. Pace
Manager, Site Licensing
and Industry Affairs

Enclosures

1. WCAP-16245-NP, Revision 0, dated April 2004.
2. WCAP-1633-NP, dated October 2004.

cc (Enclosures):

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